

ABSTRACT OF THE DISCLOSURE

An enterprise network services architecture providing an interface to enterprise application programs, that enables 5 enterprise application programs to define end to end network service parameters on an application specific basis, across multiple forwarding domains within the enterprise network. Communication service parameters defined by the application are enforced by software programs, referred to as network services modules (NSMs), 10 operating on a per-forwarding domain basis. A network services protocol (NSP) provides communications between application servers and the NSMs, and a network services exchange protocol (NSEP) is used for communications between the NSMs. The disclosed NSMs enforce quality of service (QoS) levels within forwarding domains as 15 needed to support end to end communication service parameters defined by enterprise applications. NSM operation includes, but is not limited to, control of path selection on a per-forwarding domain basis, as needed to support the communication service definitions of enterprise application programs. Authentication by 20 application servers of application service requests provides authentication prior to establishment of communication services requested by the enterprise applications.